

WHAT IS CLAIMED IS:

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1. A process for preparing alkylhydroxyalkyl cellulose comprising the steps of:
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- a) alkylating cellulose with an aqueous caustic solution containing from 1.5 to 5.5 equivalents of alkali metal hydroxide per anhydroglucose unit (AGU) of said cellulose, in the presence of a suspension agent which contains alkyl halide in an amount of from (equivalents of alkali metal hydroxide per AGU minus 1.4) to (equivalents of alkali metal hydroxide per AGU plus 0.8);
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- b) reacting the alkali cellulose of step a) with one or more alkylene oxides at a temperature higher than 65°C;
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- c) adding alkyl halide, to the product of step b), in an amount of at least the difference between (i) the equivalents of alkyl halide per AGU in step a) and (ii) the equivalents of alkali metal hydroxide added per AGU in step a), provided that the amount of additionally added alkyl halide is at least 0.2 equivalents per AGU;
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- d) isolating alkylhydroxyalkyl cellulose from the reaction mixture of step c); and
- e) optionally purifying the isolated alkylhydroxyalkyl cellulose.
2. The process of Claim 1 wherein said suspension agent is dimethyl ether.

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3. The process of Claim 1 wherein said alkyl halide is selected from the group consisting of methyl chloride, ethyl chloride, ethyl bromide and propyl iodide.

5            4.        The process of Claim 2 wherein in step a), said alkyl halide is methyl chloride, and the parts by weight ratio of dimethyl ether to methyl chloride is in the range of 70:30 to 20:80.

5. The process of Claim 1 wherein said alkylene oxide is  
10 selected from ethylene oxide, propylene oxide, butylene oxide and mixtures  
thereof.

6. The process of Claim 1 wherein the temperature under which steps b) and c) are each performed is independently in the range of 65 to 110°C.

7. The process of Claim 1 wherein the alkylhydroxyalkyl cellulose prepared is methylhydroxypropyl cellulose (MHPC).

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